



**NATIONAL OPEN UNIVERSITY OF NIGERIA  
UNIVERSITY VILLAGE, PLOT 91, CADASTRAL ZONE  
NNAMDI AZIKIWE EXPRESS WAY, JABI, ABUJA  
FACULTY OF HEALTH SCIENCES  
DEPARTMENT OF PUBLIC HEALTH SCIENCE  
2023\_1 POP EXAMINATION**

**COURSE TITLE: Pharmacology and Therapeutics in Public Health**

**COURSE CODE: PHS810**

**COURSE UNITS: 2 Units**

**TIME ALLOWED: 1½ Hours**

**TOTAL MARKS: 70%**

**INSTRUCTION: Answer ALL Questions**

**Question 1**

**(20 marks)**

- 1a) Discuss the advantages and disadvantages of intravenous drug administration.
- 1b) What is the importance of drug concentration?
- 1c) List the physicochemical properties of a molecule that aids in its diffusion across a membrane.

**Question 2**

**(25 marks)**

- 2a) Explain the patterns involved in drug-drug interactions.
- 2b) Mention the routes involved in drug elimination.
- 2c) Mention the types of allergic reactions, giving an example for each type of allergic reaction.
- 2d) What is the mechanism of action of calcium channel blocker?
- 2e) What are the adverse effects of calcium channel blockers?
- 2f) Classify malaria infection based on the main stages of drug target.

**Question 3**

**(25 marks)**

- 3a) Digoxin is a type of cardiac glycoside of clinical importance. Explain its mode of action.
- 3b) What are the adverse effects of Digoxin?
- 3c) Mention five factors that are responsible for masking adverse drug reactions.
- 3d) Explain bioavailability.